From: Jay Field
To: Eric Blischke/R10/USEPA/US@EPA
Subject: Re: Reliability Statistics
Date: 12/06/2010 09:13 AM

Eric,
I will prepare the summary table for all stations as I did before and provide a table with the models (along with other documentation), but the other documentation will not be finalized until later in the week.
Jay

On 12/6/2010 9:06 AM, Blischke.Eric@epamail.epa.gov wrote:
> Jay, one more thing, while the summary spreadsheet I just requested
> should be fine for Margaret to map, we need to provide the full model
> (along with the documentation) to the LWG.
>
> Thanks, Eric
>
>
>
> From: Jay Field<Jay.Field@noaa.gov>
> To: Eric Blischke/R10/USEPA/US@EPA
> Date: 12/06/2010 08:40 AM
> Subject: Re: Reliability Statistics
>
>
>
> Eric,
> I'll be on the call Weds. I'll send the models later this AM. I assume
>
> you only want the models and the normalization and that Margaret will
> calculate the pmax values or do you need the pmax values as well?
> Jay
>
> On 12/4/2010 11:22 AM, Blischke.Eric@epamail.epa.gov wrote:
>> Attached is an updated power point file - I realized that I had
>> Chironomus Survival Level 3 presented twice and did not include a
> chart
>> of the Chironomus Survival Level 2. In addition, I have developed a
>> spreadsheet that presents the SQGs from the optimum FPMs. I will have
>> Margaret map the lowest Level 2 and Level 3 SQGs. Once we Jay's
> updated
>> model (Jay please send), I will have margaret map pmax exceedances
> based
>> on a pmax of 0.52 (level 2) and 0.62 (level 3). We can present these
>> results in the revised BERA and use the maps to identify areas of
>> benthic risk in the draft FS.
>>
>> Let's plan on having a co n Wednesday ng at 10:00
>> am using the TCT number (Non- pass code Non-).
>>
>> Thanks, Eric
>>
>> (See attached file: LRMFPMReliability120410.ppt)(See attached file:
>> FPMSQGs120410.xls)
>>
>>
>>
>> From: Eric Blischke/R10/USEPA/US
>> To: Burt Shephard/R10/USEPA/US@EPA, Joe
> Goulet/R10/USEPA/US@EPA,
>> Jennifer L Peterson<PETERSON.Jenn@deq.state.or.us>,
> POULSEN
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>> Cc: Chip Humphrey/R10/USEPA/US@EPA,
> anderson.jim@deq.state.or.us
>> Date: 12/02/2010 02:21 PM
>> Subject: Reliability Statistics
>>
>>
>> I have spent the morning going through the reliability statistics. My
>> thinking is summarized in the attached power point file.
>>
>> I have been looking at the information from a "risk management"
>> perspective. It is my expectation that the "risk assessment" will
>> present all the information in a manner that can be clearly
> understood.
>> As people may recall, when I looked at the information previously, I
>> established a theoretical goal of 10% false positives and 50% false
>> negatives. My sense was that this would optimize our ability to
>> identify areas of benthic risk in the draft FS. In addition, it is my
>> expectation that any cleanup based on the benthic risk line of
> evidence
>> will have to demonstrate protectiveness through a bioassay result.
>>
>> Looking at the results, it is clear that Jay's model can achieve the
>> goals that I established but that for the FPM, the goal can only be
> met
>> for the HyS L2, HyS L3 and ChrS L3 endpoints. However, it is also
> clear
>> that the FPM achieves better false negative rates than the LRM. As a
>> result, I looked at optimizing the FPM results by ensuring that false
>> positive rates were less than 20% and selecting the best false
> negative
>> rate. In this case, the FPM performs well for all endpoints with the

>> exception of Hyalella biomass.
>>
>> I also looked briefly at the mean quotient reliability statistics that
>> John just sent over. For the MQ approach, the false positive rates
> were
>> quite good (as one would expect from a PEC/PEL based approach) but the
>> false negative rates were substantially higher than either the FPM or
>> the LRM.
>>
>> What I would like to do is have the risk assessment present all lines
> of
>> evidence. The risk characterization can present the results of the
>> reliability analyses. Hopefully, we can reach agreement on how to
>> present this information in the BERA without getting into a big
> argument
>> over Hyalella biomass.
>>
>> For the risk management portion that feeds into the FS, I would like
> to
>> pick the optimum Pmax and FPM values. These are shown on my charts.
>> The optimum Pmax values and the optimum FPM generated SQGs would be
>> presented on a series of maps along with the other benthic LOE such as
>> TZW AWQC exceedance, benthic TRV exceedance and empirical bioassays
> for
>> the purpose of identifying areas of benthic risk. I think we have the
>> basis to reject the Level 2 Hyalella biomass because of its
> unacceptably
>> high false positive rate.
>>
>> We can discuss some of the details of this process. However, this is
>> generally how I would like to see this go forward. I think it is a
>> technically sound approach supported by the reliability analysis and
> can
>> also be worked out in fairly short order. I would like to set up a
>> meeting with the technical team to discuss this further before our
>> scheduled meeting with the LWG on December 13th.
>>
>> One final note, although there are a lot of statistics out there, for
> me
>> it really boils down to minimizing false positives and false
> negatives.
>> These have the advantage of being easily being pulled of a plot of hit
>> no-hit distributions and are thus far more intuitive to me. As a
>> result, my analysis has focused on these values.
>>
>> Eric
>>
>> [attachment "LRMFPMReliability.ppt" deleted by Eric
>> Blischke/R10/USEPA/US]
> --
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